



Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

#### SURGE PROTECTION DEVICE RECOMMENDED

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.



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# Introduction



TLS HDMI Switch 4/1 MHL is a high-definition switch and supports 3D, 4K\*2K, and can be used for multiple players, even smartphones and tablets, to switch to a single device. In addition, TLS HDMI switch 4/1 MHL supports optical fiber and coaxial, and analog 7.1 sound channel audio output at the same time. It works with all sorts of power amplifier devices. It can be used in teaching, training, conferencing etc.

It works with smartphones with MHL functionality and supports power supply for MHL adapters.

With IR remote control you can switch the TLS HDMI switch 4/1 MHL from the distance.

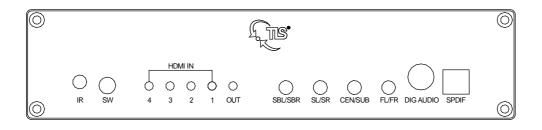
# Features

- In line with the version 1.4 specification, support resolution of 4K\*2K, support 3D signal
- With the build in memory function, boot can broadcast channel picture last time
- Can automatically search for a signal channel broadcast
- Support of remote control and manual switching
- Support 340 MHz / 3.4 Gbps single channel bandwidth
- Support 14/30/36/48 bit Deep Color RGB
- Support Blu-Ray DVD 24/50/60fs/HD-DVD/ xvYCC
- Support analog audio 7.1
- Audio format DTS-HD / Dolby-trueHD / LPCM7.1 / DTS / Dolby-AC3 / DSD / HD/ HBR
- Support for digital audio 5.1 channels, optical fiber and coaxial output at the same time.
- Support MHL signal input
- Support ARC, audio return channel
- With TLS digital cables you can reach up to 25m on the output, up to 10m on the input
- HDCP compatible

# **Panel Descriptions**



#### **Front Panel**



- IR IR receiver
- SW switching button
- HDMI 1-4 HDMI input 1-4, green-active
- OUT HDMI output, red-active
- SBL/SBR Surround back speaker left-right
- SL/SR Surround speaker left-right
- CEN/SUB Center speaker, Sub-woofer
- FL/FR Front speaker left-right
- COAXIAL, Digital audio output 5.1
- SPDIF, Digital audio output 5.1



#### **Rear panel**

| $\bigcirc$ |       |  |             | Ø  |
|------------|-------|--|-------------|----|
| O          | DC.5V |  | 2 HDMI IN 3 | () |

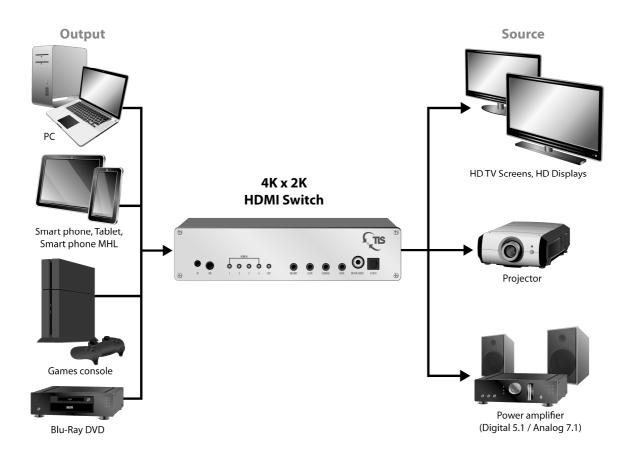
- DC,5V Input power supply
- HDMI OUT HDMI output
- HDMI IN 4 inputs for HDMI source
- MHL special HDMI input for MHL-smartphone, dual use for MHL and HDMI, not designed for automatic signal detection

For the usage of MHL-input you must use a smartphone with MHL-functionality. Also you have to use MHL adapter from your smartphone to MHL-input. There is no need for a power supply for the MHL adapter. The adapter will be powered by the MHL-input. The MHL input is not designed for automatic signal detection.

It is also possible to connect all other tablets and smartphones with Mini-HDMI-output to the TLS HDMI switch 4/1 MHL. You just need a HDMI-cable with Mini-HDMI-plug to HDMI-plug.



# **Application Diagram**





### **Specifications**

| Bandwidth          |        | 3.4 Gbps per color                     |  |  |
|--------------------|--------|--|--|--|
| Video              | Input  | 4x HDMI Type A, 19-pin, female         |  |  |
| Connectors         |        |  |  |  |
| Video              | Input  | 1x MHL – HDMI Type A, 19-pin,          |  |  |
| Connector          |        | female                                 |  |  |
| Video              | Output | 1x HDMI Type A, 19-pin, female         |  |  |
| Connectors         |        |  |  |  |
| Audio              | Output | 1x RCA(SPDIF), 1x Toslink (SPDIF)      |  |  |
| Connectors         |        |  |  |  |
| Audio              | Output | 4x Mini Jack - 7.1 analog audio output |  |  |
| Connectors         |        |  |  |  |
|                    |        |  |  |  |
| Dimensions(W x D x |        | xxmm x xxmm x xxmm, without feet       |  |  |
| H)                 |        |  |  |  |
| Shipping Wei       | ight   | 0.3KG                                  |  |  |
| Operating          |        | 32°F to 104°F (0°C to 40°C)            |  |  |
| Temperature        |        |  |  |  |
| Storage            |        | - 4°F to 140°F (- 20°C to 60°C)        |  |  |
| Temperature        |        |  |  |  |
| Power Supply       |        | 5V/1A DC                               |  |  |

# **Package Contents**

- 1. 1x 875222 HDMI switch 4/1 MHL
- 2. 1x 5V/1A Power Supply
- 3. 1x IR remote control

### Maintenance



Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzene to clean this unit.

### **Warranty Policy**

TLS electronics products are warranted against defects in material and workmanship for three years from the date of shipment. During the warranty period, TLS electronics will, at its option, repair or replace products that prove to be defective. Repairs are warranted for the remainder of the original warranty or a 90 day extended warranty, whichever is longer.

For equipment under warranty, the owner is responsible for freight to TLS electronics and all related customs, taxes, tariffs, insurance, etc. TLS electronics is responsible for the freight charges only for return of the equipment from the factory to the owner. TLS electronics will return the equipment by the same method as the equipment was sent to TLS electronics.

All equipment returned for warranty repair must have a valid RMA number issued prior to return and be marked clearly on the return packaging. TLS electronics strongly recommends all equipment be returned in its original packaging.

TLS electronics obligations under this warranty are limited to repair or replacement of failed parts, and the return shipment to the buyer of the repaired or replaced parts.

### **Limitations of Warranty**

The warranty does not apply to any part of a product that has been installed, altered, repaired, or misused in any way that, in the opinion of TLS electronics, would affect the reliability or detracts from the performance of any part of the product, or is damaged as the result of use in a way or with equipment that had not been previously approved by TLS electronics.



The warranty does not apply to any product or parts thereof where the serial number or the serial number of any of its parts has been altered, defaced, or removed.

The warranty does not cover damage or loss incurred in transportation of the product.

The warranty does not cover replacement or repair necessitated by loss or damage from any cause beyond the control of TLS electronics, such as lightning or other natural and weather related events or wartime environments.

The warranty does not cover any labor involved in the removal and / or reinstallation of warranted equipment or parts on site, or any labor required to diagnose the necessity for repair or replacement.

The warranty excludes any responsibility by TLS electronics for incidental or consequential damages arising from the use of the equipment or products, or for any inability to use them either separate from or in combination with any other equipment or products.

A fixed charge established for each product will be imposed for all equipment returned for warranty repair where TLS electronics cannot identify the cause of the reported failure.

### **Exclusive Remedies**

TLS electronics's warranty, as stated is in lieu of all other warranties, expressed, implied, or statutory, including those of merchantability and fitness for a particular purpose. The buyer shall pass on to any purchaser, lessee, or other user of TLS electronics products, the aforementioned warranty, and shall indemnify and hold harmless TLS electronics from any claims or liability of such purchaser, lessee, or user based upon allegations that the buyer, its agents, or employees have made additional warranties or representations as to product preference or use.

The remedies provided herein are the buyer's sole and exclusive remedies. TLS electronics shall not be liable for any direct, indirect, special, incidental, or



consequential damages, whether based on contract, tort, or any other legal theory.

### **RMA Policy**

When returning product to TLS electronics for any reason, the customer should

fill out the official RMA form to obtain a RMA number. Without the permission or approval, TLS electronics will be no responsible for any return. This can be initiated by emailing or calling your related sales. All requests are processed within 48 hours.

#### Standard Replacement

For customers that agree to return defective product to TLS electronics first, a Standard Replacement option is available.

An RMA number must first be issued by sales. This RMA number will need to be referenced on the outside of the return shipment.

Upon receipt of the defective product, TLS electronics will, at its discretion, either repair or replace the product and ship it out in the most expeditious manner possible. Subject to availability, the replacement product will be shipped

on the business day following receipt of the defective product.

In the event the product returned to TLS electronics has been discontinued (i.e. the product is no longer being manufactured by TLS electronics but is still under warranty), TLS electronics will, at its discretion, either repair or replace with recertified product.



#### Once you have obtained an RMA number

After obtaining an RMA number from TLS electronics, you must send the product - freight prepaid - to TLS electronics. The TLS electronics RMA number must be prominently displayed on the outside of your package. If you send your product to TLS electronics without the RMA number prominently displayed on the outside of the package, it will be returned to you unopened.

Please use a shipping company that can demonstrate proof of delivery. TLS electronics does not accept responsibility for any lost shipments unless proof of delivery to TLS electronics is provided.

#### Please note:

Product shipped to TLS electronics must be properly packaged to prevent loss or damage in transit.

Shipping your RMA to TLS electronics using regular mailing envelopes is not acceptable, as they do not protect the product from damage during shipping.

TLS electronics will not repair or replace a module that is shipped in such a way that the product is not properly protected.

TLS electronics will not accept any product that has been damaged as a result of accident, abuse, misuse, natural or personal disaster, or any unauthorized disassemble, repair or modification.